

FLORA OF PENIKESE, FIFTY YEARS AFTER.

Edited by I. F. LEWIS.

(Continued from page 196.)

LIST OF SPECIES.

ALGAE.

A. ALGAE OF FRESH WATER (BY TRACY E. HAZEN).

Myxophyceae

Anabaena oscillarioides Bory, var. stenospora Born. et Flah.

Calothrix epiphytica W. et G. S. West.

Cylindrospermum majus Kuetz.

Microcystis sp.

Nodularia paludosa Wolle.

Nostoc sp.

Oscillatoria splendida Grev.

Oscillatoria tenuis Ag.

Oscillatoria sp.

Phormidium tenue (Menegh.) Gom.

Heterokontae

Botryococcus Braunii Kuetz.

Tribonema bombycinum (Ag.) Derb. et Sol.

Tribonema utriculosum (Kuetz.) Hazen.

Chlorophyceae

Ankistrodesmus falcatus Ralfs.

Asterococcus limneticus G. M. Smith.

Botrydium granulatum Grev.

Bulbochaete sp. (sterile).

Characium ambiguum Herm.

Chlamydomonas (three undetermined species).

Chlorella vulgaris Beyer.

Closterium Ehrenbergii Menegh.

Closterium sp.

Cosmarium (two species).

Elakatothrix gelatinosa Wille.

- Glaucozystis nostochinearum* Itzigs.
Herposteiron confervicola Naeg.
Keratococcus caudatus Pascher.
Micrasterias sp.
Microthamnion Kuetzingianum Naeg.
Microspora Willeana Lagerh.
Mougeotia sp.
Myxonema sp. (juvenile).
Oedogonium sp.
Oocystis sp.
Palmodictyon varium Lemm.
Pandorina morum Bory.
Platymonas subcordiformis (Wille) Hazen.
Pleurococcus vulgaris Naeg.
Protosiphon botryoides (Kuetz.) Klebs.
Scenedesmus brasiliensis Bohlin.
Sphaerella lacustris (Girod.) Wittr.
Spirogyra sp.
Staurastrum sp.
Stichococcus bacillaris Naeg.
Stichococcus flaccidus (Kuetz.) Gay.
Vaucheria sessilis (Vauch.) DC.
Zygnema sp. (sterile).

D. MARINE ALGAE¹ (BY W. R. TAYLOR).

Myxophyceae

- **Anabaena torulosa* (Carm.) Lagerh.
Calothrix confervicola (Dillw.) Ag.
*i*Calothrix crustacea* Thuret.
*i*Calothrix fusco-violacea* Crouan.
*i*Calothrix parasitica* (Chauv.) Thuret.
Calothrix scopulorum (Web. et Mohr) Ag.
*i*Hyella caespitosa* Born. et Flah.
*i*Isactis plana* (Harv.) Thuret.
*i*Lyngbya aestuarii* (Mert.) Liebm.
*i*Mastigocoleus testarum* Lagerh.
*i*Oscillatoria margaritifera* Kuetz.
*i*Phormidium papyraceum* (Ag.) Gom.
*i*Rivularia atra* Roth.

¹ Species marked with an asterisk were not found by Jordan.

Chlorophyceae

- **Chaetomorpha Linum* (Fl. Dan.) Kuetz.
- Chaetomorpha Melagonium* (Web. et Mohr) Kuetz.
- Cladophora albida* (Huds.) Kuetz.
- **Cladophora albida* var. *refracta* Thuret.
- Cladophora expansa* (Mert.) Kuetz.
- **Endoderma Wittrockii* (Wille) Lagerh.
- Enteromorpha compressa* (L.) Grev.
- Enteromorpha intestinalis* (L.) Link.
- **Enteromorpha Linza* (L.) J. Ag.
- **Enteromorpha minima* Naeg.
- Enteromorpha plumosa* Kuetz.
- **Gomontia polyrhiza* (Lagerh.) Born. et Thuret.
- **Prasiola stipitata* Suhr.
- **Protoderma marinum* Reinke.
- **Rhizoclonium Kernerii* Stockm.
- Spongomerpha lanosa* (Roth.) Kuetz. var. *uncialis* (Fl. Dan.) Kjell.
- Ulva Lactuca* (L.) LeJolis.

Phaeophyceae

- Ascophyllum nodosum* (L.) LeJolis.
- Asperococcus echinatus* (Mert.) Grev.
- **Castagnea virescens* (Carm.) Thuret.
- **Castagnea Zosterae* (Mohr) Thuret.
- **Chorda Filum* (L.) Stackh.
- Chordaria flagelliformis* (Fl. Dan.) Ag.
- **Desmarestia aculeata* (L.) Lamour.
- Desmarestia viridis* (Fl. Dan.) Lamour.
- Desmotrichum undulatum* (J. Ag.) Reinke.
- Dictyosiphon foeniculaceus* (Huds.) Grev.
- **Ectocarpus confervoides* (Roth) LeJolis.
- **Ectocarpus confervoides* var. *hiemalis* (Crouan) Kuckuck.
- **Ectocarpus fasciculatus* Harv.
- Ectocarpus siliculosus* (Dillw.) Ag.
- **Ectocarpus tomentosus* (Huds.) Lyngb.
- Elachistea fucicola* (Velle) Fries.
- Fucus vesiculosus* L.
- Laminaria Agardhii* Kjellm.
- Laminaria digitata* (L.) Lamx.

- **Laminaria Platymeris* De La Pyl.
- Leathesia difformis* (L.) Aresch.
- Mesogloia divaricata* (Ag.) Kuetz.
- **Myrionema Leclancheri* (Chauv.) Harv.
- Petalonia fascia* (Mueller) Kuntze.
- **Petalonia fascia* var. *caespitosa* (LeJolis) Hauck et Richt.
- **Punctaria latifolia* Grev.
- Pylaiella littoralis* (L.) Kjellm.
- **Ralfsia verrucosa* Aresch.
- **Scytosiphon lomentarius* (L.) Lyngb.
- Sphacelaria cirrhosa* (Roth) O. Ag.

Rhodophyceae

- Acrochaetium virgatum* (Harv.) J. Ag.
- **Actinococcus subcutaneus* (Lyngb.) Schmitz.
- Annfeldtia plicata* (Turn.) Fries.
- **Antithamnion cruciatum* (Ag.) Naeg.
- Callithamnion corymbosum* (Eng. Bot.) Ag.
- Ceramium fastigiatum* Harv.
- Ceramium rubrum* (Huds.) Ag.
- **Ceramium strictum* (Kuetz.) Harv.
- Champia parvula* (Ag.) Harv.
- **Chondria tenuissima* (Good. et Wood) Ag. var. *Baileyan* (Mont.) Farlow.
- Chondrus crispus* (L.) Stackh.
- **Choreocolax Polysiphoniae* Reinsch.
- Corallina officinalis* L.
- Cystoclonium purpurascens* (Huds.) Kuetz.
- **Cystoclonium purpurascens* var. *cirrhosa* Harv.
- **Cystoclonium purpurascens* var. *stellata* Collins.
- Delesseria sinuosa* (Good. et Woodw.) Lamour.
- **Erythrotrichia ceramicola* (Lyngb.) Aresch.
- Grinnellia americana* (Ag.) Harv.
- **Hildenbrandtia Prototypus* Nardo.
- Lithothamnion Lenormandi* (Aresch.) Foslie (?).
- **Melobesia LeJolii* Rosanoff.
- **Melobesia pustulata* Lamour.
- **Nemalion multifidum* (Web. et Mohr) J. Ag.
- Phyllophora Brodæi* (Turn.) J. Ag.

- **Phyllophora membranifolia* (Good. et Woodw.) J. Ag.
- Plumaria elegans* (Bonnem.) Schmitz.
- Polysiphonia elongata* (Huds.) Harv.
- Polysiphonia fastigiata* (Roth) Grev.
- **Polysiphonia fibrillosa* (Dillw.) Grev.
- Polysiphonia nigrescens* (Dillw.) Grev.
- **Polysiphonia nigrescens* var. *Durkeei* Harv.
- **Polysiphonia nigrescens* var. *fucoides* Harv.
- Polysiphonia urceolata* (Dillw.) Grev. var. *formosa* (Suhr.) Ag.
- **Polysiphonia urceolata* var. *patens* (Dillw.) Grev.
- Polysiphonia violacea* (Roth) Grev.
- **Polysiphonia violacea* var. *flexicaulis* Harv.
- Porphyra laciniata* (Lightf.) Ag.
- **Rhododermis Georgii* (Batters) Collins.
- Rhodomela subfuscata* (Woodw.) Ag.
- Rhodymenia palmata* (L.) Grev.
- Seirospora Griffithsiana* Harv.
- Spermothamnion Turneri* (Mart.) Aresch.
- Spyridia filamentosa* (Wulf.) Harv.

B. ALGAE OF BRACKISH WATER (BY TRACY E. HAZEN).

- Arthrospira Gomontiana* Setchell.
- Chlorella vulgaris* Beyer.
- Enteromorpha intestinalis* (L.) Link.
- Lyngbya aestuarii* (Mert.) Liebm.
- Oscillatoria amphibia* Ag.
- Oscillatoria margaritifera* (Kuetz.) Gom.
- Oscillatoria subuliformis* (Thw.) Gom.
- Oscillatoria* sp.
- Spirulina tenuissima* Kuetz.

(In addition to the algae listed, certain alga-like bacteria are common in the brackish ponds, such as *Beggiatoa mirabilis*, *Beggiatoa alba marina*, and *Lamprocystis roseo-persicina*.)

C. DIATOMS (BY PAUL S. CONGER).

- Achnanthes longipes* Ag.
- Actinocyclus crassus* W. S.
- Actinocyclus Ehrenbergii* Ralfs.
- Actinoptychus undulatus* E.

- Amphora Grevilleana* Greg.
Amphora obtusa Greg.
Auliscus caelatus Bail.
Auliscus caelatus var. *strigillata* A. S.
Biddulphia Favus (E.) V. H.
Campylodiscus Thuretii Bréb.
Chaetoceros coaretatum Laud.
Chaetoceros decipiens Cl.
Chaetoceros didymum E.
Chaetoceros (Bacteriastrum) varians Laud. forma *furcata* Grun.
Cocconeis scutellum E.
Coscinodiscus excentricus E.
Coscinodiscus Oculus-Iridis var. *Morsiana* Grun.
Coscinodiscus nodulifer A. S. (Wide Variety).
Coscinodiscus radiatus E.
Cyclotella comta (E.) K.
Eupodiscus Argus E. (= *Aulacodiscus Argus* (E.) A. S.).
Fragillaria hyalina K.
Grammatophora macilenta W. S.
Grammatophora marina Grun.
Grammatophora serpentina E.
Hantzschia amphioxys Grun.
Hantzschia marina (Donk.) Grun.
Hyalodiscus stelliger Bail.
Licmophora flabellata Ag.
Licmophora Lyngbyei K.
Licmophora tincta (Ag.) Grun.
Mastogloia exigua Lewis.
Melosira Borreri Grev.
Melosira sulcata K.
Melosira sulcata forma *coronata* Grun.
Navicula ambigua Cl.
Navicula aspera E.
Navicula Bombus E.
Navicula borealis E.
Navicula Brauni Grun.
Navicula clavata var. *caribaea* Cl.
Navicula dicephala (E.) W. S.
Navicula didyma K. & E.

- Navicula* (*Pinnularia*) *distans* W. S.
Navicula elegans W. S.
Navicula exempta W. S.
Navicula forcipata var. *densistriata* A. S.
Navicula formosa Greg.
Navicula fusca Greg.
Navicula (*Stauroneis*) *gracilis* E.
Navicula (*Stauroneis*) *Gregorii* Ralfs.
Navicula Hantzschiana Rab.
Navicula Hennedeyi W. S.
Navicula humerosa Bréb.
Navicula interrupta K.
Navicula Lyra E.
Navicula Lyra var. *dilatata* A. S.
Navicula Lyra var. *elliptica* A. S.
Navicula maxima Greg.
Navicula major K.
Navicula nanella P. C. sp. n.
Navicula notabilis var. *expleta* A. S.
Navicula palpebralis var. *angulosa* Greg.
Navicula peregrina E.
Navicula quadratarea A. S.
Navicula rhynchocephala K.
Navicula Smithii Bréb.
Navicula suborbicularis Greg.
Navicula viridis Nitzsch.
Navicula viridula K.
Navicula Yarrensis Grun.
Navicula sp. indet.
Navicula sp. indet.
Nitzschia closterium (E.) W. S.
Nitzschia fonticola Grun.
Nitzschia frustulum var. *perminuta* Grun.
Nitzschia longissima (Bréb.) Ralfs.
Nitzschia Sigma (K.) W. S.
Nitzschia scalaris W. S.—(wide variety).
Pleurosigma aestuarii W. S.
Pleurosigma affine Grun.
Pleurosigma elongatum W. S.

Podocystis Americana Bail. (= *Podocystis Adriatica* K.).
Pseudo-eunotia doliolus (Wall.) Grun.
Rhabdonema Adriaticum K.
Rhizosolenia hebetata forma *semispina* (Hensen) Gran.
Rhizosolenia setigera Brightw.
Scoliopleura latestriata (Bréb.) Cl.
Striatella unipunctata Ag.
Surirella Mölleriana Grun.
Surirella recedens A. S.
Synedra Gaillonii var. *macilenta* Grun.
Synedra Hennedeyana Greg.
Tabellaria fenestrata (Lyngb.) K.
Trigonium alternans E.
Tropidoneis Lepidoptera (Greg.) Cl.
 Number of genera—34; Number of species—96.

E. FUNGI.¹

Achlya sp.
Cystopus candidus (Pers.) Lev.
Daedalea quercina (L.) Pers.
Empusa sp.
Erysiphe cichoracearum D. C.
Erysiphe communis (Wallr.) Fr.
Exoascus Pruni Fuck.
Fomes applanatus (Pers.) Gillet.
Fuligo septica Gmel.
Hypoxyton sp.
Irpea sp.
Naucoria sp.
Ovularia obliqua (Cke.) Oud.
Phyllosticta labruscae Thuem.
Plasmopara viticola (Berk. et Curt.) Berl. et DeToni.
Polystictus versicolor (L.) Fr.
Puccinia malvacearum Mont.
Puccinia Phlei-pratensis Erikss. et Henn.
Puccinia triticina Erikss.
Puccinia sp. (on *Taraxacum*).
Puccinia sp. (on *Cirsium*).

¹ The list of fungi here given is known to be incomplete, but offers some indication of the fungous vegetation found on the island.

Septoria oenotherae West.

Uromyces trifolii (Hedw. f.) Lev.

F. BRYOPHYTA (BY S. F. COOK).

Aulacomnium palustre Schwaegr. Small quantity mixed with *Brachythecium*.

Brachythecium acutum Sulliv. *Typha* and *Tern Ponds*.

Bryum argenteum L. General in sandy spots.

Catherinea angustata Brid. Fairly common on damp soil.

Ceratodon purpureus Brid. Universal on sandy, exposed spots.

Dicranum flagellare Hedw. Fairly common on damp soil.

Ditrichum pallidum (Schreb.) Hampe. Fairly common on damp soil.

Lophocolea heterophylla. One spot, under a moist bank, northeast corner of island.

Mnium punctatum Hedw. Small quantity mixed with *Brachythecium*.

Polytrichum commune L. General in open spots.

Polytrichum juniperinum Willd. Same.

Polytrichum piliferum Schreb. Same.

G. PTERIDOPHYTA (BY ALMA G. STOKEY).

**Athyrium Filix-femina* (L.) Roth. South end of island.

**Aspidium Thelypteris* (L.) Sw. Low wet places, *Typha* and *Tub Ponds*.

Dennstaedtia punctilobula (Michx.) Moore [*Dicksonia punctilobula* (Michx.) Gray]. Around reservoir.

H. SPERMATOPHYTA.¹

Pinaceae

**Pinus sylvestris* L. Hospital grounds.

Typhaceae

**Typha latifolia* L. *Typha* and *South Ponds*.

Najadaceae

Zostera marina L. Harbor and elsewhere in shallow water.

(To be continued.)

¹ By John M. Fogg, Jr. Synonyms used by Jordan in brackets. Species marked with an asterisk not found by Jordan.